CLAIMS

1. A modified pro-α chain comprising a triple helical forming domain linked to at least one N-terminal domain characterised in that the N-terminal domain contains a polypeptide sequence from at least part of a laminin glycoprotein or at least part of a secretory leukocyte protease inhibitor or functional derivatives thereof.

2. A modified pro-α chain as claimed in claim 1 wherein the triple helical forming domain is from a fibrillar forming pro-α chain.

3. A modified pro-α chain as claimed in claim 2 wherein the triple helical forming domain is from a type I, II, III, V or XI pro-α chain.

4. A modified pro-α chain as claimed in claim 3 wherein the triple helical forming domain is from a proα1 (III) chain.

5. A modified pro-α chain as claimed in any one of claims 1 to 4 wherein the N-terminal domain comprises a part of a laminin molecule.

6. A modified pro-α chain as claimed in claim 5 wherein the N-terminal domain is derived from the globular domains of an α-chain of a laminin molecule.

7. A modified pro-α chain as claimed in claim 6 wherein the N-terminal domain comprises the amino acid sequence for at least the G3 globular domain of the α-chain.

8. A modified pro-α chain as claimed in claim 6 wherein the N-terminal comprises the amino acid sequence for the G1 to G3 domains.

9. A modified pro-α chain as claimed in any one of claims 5 to 8 wherein N-terminal sequence of the pro-α chain is replaced with at least part of the amino acid sequence of the globular chain of Laminin-5.

10. A modified pro-α chain as claimed in any one of the preceding claims wherein the procollagen N-propeptide sequence is replaced prior to N100 with the sequence for the laminin glycoprotein.

11. A modified pro-α chain as claimed in claim 1 wherein the entire sequence of secretory leukocyte protease inhibitor is attached to the N-terminal domain.

12. A modified pro-α chain as claimed in any one of claims 1 to 11 wherein a N-proteinase cleavage site associated with the N-terminal propeptide domain is modified such as to alter the domain's susceptibility to cleavage.

13. A modified pro-α chain as claimed in claim 12 wherein the N-proteinase cleavage site is modified such that the domain may not be cleaved.

14. A modified pro-α chain as claimed in claim 13 wherein a region between the helical forming domain and the N-propeptide forming domain of the pro-α chain is modified to confer resistance to N-proteinases.

15. A modified pro-α chain as claimed in claim 14 wherein Pro-Gln in the region is altered to Leu-Pro.

16. A modified pro-α chain as claimed in claim 8 wherein the N-terminal domain contains the amino acids of SEQ ID NO: 10.

17. A modified pro-α chain as claimed in claim 7 wherein the N-terminal domain contains the amino acids of SEQ ID NO:14 .

18. A modified pro-α chain as claimed in claim 11 wherein the N-terminal domain contains the amino acids of SEQ ID NO:27.

19. A DNA molecule encoding modified pro-α chains as defined by any one of claims 1 to 18.

20. A DNA molecule encoding modified pro-α chains as claimed in claim 19 characterised in that the molecule includes the bases of SEQ ID NO: 9.

21. A DNA molecule encoding modified pro-α chains as claimed in claim 19 characterised in that the molecule includes the bases of SEQ ID NO: 13.

22. A DNA molecule encoding modified pro-α chains as claimed in claim 19 characterised in that the molecule includes the bases of SEQ ID NO: 26.

23. A procollagen molecule comprising a trimer of pro-α chains characterised in that at least one of the pro-α chains is a modified pro-α chain as defined by any one of claims 1 to 18.

24. A procollagen molecule as claimed in claim 23 wherein the C-terminal domain of the molecule is removed.

25. A collagen polymer comprising collagen monomers wherein at least some of the collagen monomers contained therein have retained N-propeptides characterised in that at least some of the retained N-propeptides contain a polypeptide sequence from at least part of a laminin glycoprotein or at least part of a secretory leukocyte protease inhibitor or functional derivatives thereof.

26. A collagen polymer as claimed in claim 25 wherein the collagen monomers having retained propeptide domains are derived from procollagen molecules as defined by claim 23 or claim 24.

27. A collagen matrix comprising collagen monomers having modified propeptide domains derived from procollagen molecules as defined by claim 23 and claim 24.

28. A dressing comprising collagen polymers as defined by claim 26 or a collagen matrix as defined by claim 27.

29. The use of a modified pro-α chain, procollagen molecule, polymer, matrix or dressing according to any one of the preceding claims for the treatment of medical conditions.

30. The use of a modified pro-α chain, procollagen molecule, polymer, matrix or dressing according to any one of claims 1 to 28 for the manufacture of a medicament for use in the treatment of wounds or fibrotic disorders.

31. A method of treating a wound or fibrotic disorder comprising administering to a subject in need of such treatment a therapeutically effective amount of a modified pro-α chain, procollagen molecule, polymer, matrix or dressing according to any one of claims 1 to 28.

32. An artificial skin/tissue comprising a collagen matrix according to claim 27.

33. A body implant comprising a collagen matrix according to claim 27.

34. The use of a collagen matrix, artificial skin/tissue or a body implant according to claim 27, claim 32 or claim 33 for the treatment of medical conditions.

35. A delivery system for use in gene therapy technique, said delivery system comprising a DNA molecule according to any one of claims 19 to 22 which is capable or being transcribed to lead the expression of the modified pro-α chain at a wound site or site of fibrosis.

36. The use of a delivery system as defined in claim 35 in the manufacture of a medicament for treating wounds or fibrotic disorders.

37. A method of treating a wound or fibrotic condition comprising administering to a patient in need of treatment a therapeutic dose of a delivery system as defined in claim 35.